

Poster presentation

Ultrasound guided joint fluid aspiration and corticosteroid injection in patients with juvenile idiopathic arthritis (JIA)

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from 15th Paediatric Rheumatology European Society (PreS) Congress
London, UK. 14–17 September 2008

Published: 15 September 2008

Pediatric Rheumatology 2008, **6**(Suppl 1):P99 doi:10.1186/1546-0096-6-S1-P99

This abstract is available from: <http://www.ped-rheum.com/content/6/S1/P99>

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Background

Musculoskeletal ultrasound (US) is a rapidly evolving and powerful diagnostic modality, which is gaining popularity for the evaluation and management of joint damage and soft tissue diseases in children with JIA. Several studies have shown that clinical examination underestimates the presence of intra-articular fluid when compared to US. US guided aspiration allows direct observation of the joint effusion and needle placement and enables correct intra-articular corticosteroid injection avoiding the risk of steroid-induced subcutaneous atrophy. This contrasts X-ray guided techniques. In small joints such as MCP, PIP and MTP the effusion is mainly located proximal to the joint space.

Methods

US standard scans were performed with B-mode using a linear 6–14 MHz transducer (Hitachi EUB-6500 CFM).

Results

US guided steroid injections in small (MCP, PIP, MTP) and large (hip, knee, ankle, wrist, elbow) joints in JIA more than 50 patients were performed in the period December 2007 to April 2008. In children with systemic JIA with massively swollen joints we found that US disclosed surprisingly modest fluid effusion compared to severe synovial hypertrophy. Corticosteroid induced atrophy were not noticed.

Conclusion

In our experience US improves correct needle placement in the joint space and US guided procedures seem to be

superior to conventional injection and aspiration techniques. Implementation of US guided injections in routine pediatric rheumatology practice will conceivably allow improved treatment results and decrease the risk of iatrogenic complications.